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ABSTRACT

The major reason for using the outdoor history museum as a field laboratory is to provide for small in depth studies of "real life" problems relevant for today's students. An authentic New England village of 1790-1840 provides the background for the sequential development of various concepts in the social studies learning unit. Concepts are identified for development within four themes; however, only one is covered in this paper: How does man provide for his basic needs of food, clothing and shelter through the use of natural, human and capital resources? Course content, behavioral objectives, teacher background material, and inquiry teaching strategies related to cognitive objectives are briefly described. The inquiry-oriented curriculum materials are applicable for grade 2, but they can be used within a specific range. These are piloted in grades 1, 2 and 3. SO 000 068 and SO 000 069 describe Curriculum Model #1 and the general R-L-L Curriculum Model developed by this ESEA Title III Project. (SBE)

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Model for the Development of Inquiry - Oriented Social Studies Materials Using Community Resources as Learning Laboratories

Curriculum Model #2

Field-Laboratory: Old Sturbridge Village

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Curriculum Study #2
Field Laboratory: Old Sturbridge Village

Theme #1 -

How does man provide for his basic needs of food, clothing, and shelter through the use of natural, human and capital resources?

Experimental
Edition

The Teaching materials for this experimental edition of Theme #1 were designed by Resource Learning Laboratory in cooperation with the Staff of Old Sturbridge Village and piloted in selected elementary classrooms in School Union #61, Sturbridge, Massachusetts

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Preface

Old Sturbridge Village is one of the major outdoor history museums in the United States. It has re-created an authentic New England Village of the period 1790-1840. The village as a field laboratory of early every day life provides the scene for the development of various concepts. These concepts are identified for development within each of the following themes:

Theme #1. How does man provide for his basic needs of food, clothing and shelter through the use of natural, human and capital resources?

Theme #2. How are goods and services produced and exchanged?

Theme #3. How does man exchange ideas and what is evident of the effect of these ideas upon the Community?

Theme #4. What are the effects of technological change upon the economy of a Community?

These themes could be treated separately though have been developed with a spiralling continuity. Each of the themes in the experimental edition have curriculum materials applicable for a specific grade, though could be used within a specific range. That is, Theme #1 has been developed for Grade 2 though piloted in Grades 1, 2 and 3 to provide data as to its relevance for each level.

Concepts identified within each of the four themes have a hierarchy of development. This means that Theme #2 is dependent upon prior knowledge of those concepts in Theme #1 and Theme #3 dependent upon #2 and #2 etc.

The major purpose in this specific treatment for the use of this field-laboratory is to provide for small indepth studies of particularly significant problems relevant to students living in the world today.

As with previous studies developed by Resource Learning Laboratory -

1 - the field-laboratory is used to facilitate the development of concepts and so selected because it provides the scene for a 'real life' study of significant problems

2 - the materials are inquiry-oriented

2 - behavioral outcomes anticipated from the study are identified

4 - Teaching strategies described are employed specifically for the inquiry process

5 - these strategies are related to the cognitive level of learning required for attainment of the specific objective.

Concepts

1. natural resources
    a. soil
    b. water
    c. plants
    d. animal life
    e. minerals

2. human resources
    a. the family
    b. community craftsmen
    c. skills or technology

3. capital resources
    a. money
    b. surplus products

Generalizations

1. Man has basic needs of food, clothing and shelter.
2. Man uses resources available to him to satisfy his needs.
3. Resources and resource use are related to cultural, technological development.
4. Geographic factors influence how people live and what they do; man adapts, shapes, utilizes and exploits the earth to his own ends..

CONTENT OUTLINE [Note parallel between content outline and objectives]

I. What are man's basic needs?

A. Present day needs

1. food
2. clothing
3. shelter

B. Early New England - 1790-1840

1. food
2. clothing
3. shelter

Cognitive Task #1

Listing
Grouping
Labeling
Conceptualizing

II. What resources does man have available to satisfy these needs?

A. Present day resources

1. natural resources
2. human resources
3. capital resources

B. Resources of early New England - 1790-1840

1. natural resources
2. human resources
3. capital resources

Listing
Grouping
Labeling
Conceptualizing

III. What factors have an effect upon the way in which man satisfies his needs?

A. Geographical location
B. Technological change
C. Change in the interrelationships of natural, human and capital resources

Cognitive Task #2

Inferences
and
Generalizing

IV. What specific technological changes in the future can effect a change in man's methods of satisfying his needs?

A. Natural, human and capital resources in the production of food

B. Natural, human and capital resources in the development of shelter

C. Natural, human and capital resources in the development of clothing

Instructional Objectives - Behavioral Terms

As a result of having studied the early New England farm, its family and their needs, the student will be able to:

Teaching Strategy	Behavioral Objective
	1. Identify the basic needs of the family today and compare those with the family in the early New England village of 1790-1840.
Cognitive Task #1	
listing, grouping, labeling →	a. List those needs relating to food, shelter and clothing of the 20th century.
	b. Develop hypotheses relative to the needs for food, shelter and clothing of the early New England period. Verify these through observation of the farm scene at OSV, and by using source material (diaries, store account books and stories).
Making initial hypotheses Verifying by observations →	
Repeat steps of listing, grouping, labeling for observation at OSV →	2. Identify the natural resources, human resources, and capital resources available to man in his attempt to satisfy his needs.
	a. List those resources which we use today in satisfying our needs.
listing, grouping, labeling, conceptualizing →	b. List those available to the early New England farmer by observing the farm scene at OSV, using source material.
	3. Compare and contrast the needs and methods available to the early New England farmer with those available to man in the 20th century.
Cognitive Task #2	
inferences, generalizing	a. Identify similarities in needs and differences in methods employed, relating these to the available resources.

b. Make inferences and form generalizations concerning the relationship between availability of resources and methods employed in the satisfaction of needs.

4. Make predictions as to the changes in our 20th century methods of satisfying our needs with the advent of technological changes.

Cognitive Task #3

application

predicting consequences

explaining and supporting

a. Given a change in the equipment used in the production of food, list those changes evident in satisfying this need.

b. Given a change in the materials available in the construction of shelter, identify those changes in the process and product affecting us in satisfying this need.

c. Verify these predictions by applying criteria established through identification of historical development.

The Early New England Farm

The land and crops

The average inland farmer owned about 100 acres of land. He tilled about 10 of these and used the rest for pasture, mowing, wood lots, and waste or temporarily useless land. His growing fields were chiefly for - grains: rye, oats, barley, a little wheat and a large planting of Indian corn. Sometimes he grew an acre of flax. He planted garden vegetables: potatoes, cabbage, beans, peas, squash, pumpkins, and onions. Occasionally he raised a little tobacco, hops, or hemp. He usually followed the three-field system of crop rotation: one crop field of grain, one of grass, and one fallow for each one season. There was very little fertilization or any attempt to improve the agricultural methods. Farm implements were similar to those of the 16th century England - ox carts, ploughs, and harrows.

His orchard was an apple orchard though he might also grow pears, peaches, plums, cherries, or quinces. His fruit was not well grown. In most cases it was small and wormy. His grain fields yeilded small amounts and mice and vermin attacked his crops and livestock.

The homelot

The farmer had on his homelot a house, often crowded with his large family. He had a barn, corn crib, workshop, and one or more sheds. His livestock consisted of perhaps 6 or 8 cows, a dozen sheep, sometimes a hive of bees, chickens, geese, ten or twelve swine. He might have had a horse, but he more often had oxen. He had a cart for his oxen but not always a carriage for travel.

The farmer's tasks

clearing
planting
hoeing
harvesting
fence repairing
mending of house and barn
caring for the livestock
craftsman - making shingles, chairs, turning bowls or dishes

The farmer's wife

cooking
washing
cleaning
making cloth - woolen and linen
churned butter and pressed cheese for market
preserved food for winter with sugar, brine
and smoke or by storing in the cool earth

Making Cloth:

Linen cloth - The farmer and his sons retted or soaked flax stalks in water and then set them out to dry. The dry stalks were beaten with mallets. This "breaking" cracks the woody part of the stalk which then could be stripped off by scraping with a flat wooden blade. This was called "scutching" and prepared the flax for the final step of "hackling" or combing the fibers through finer and finer combs. The women could then spin the flax fibers into yarn, dye the yarn for color and weave the yarn into cloth.

Wool cloth - The men sheared the sheep and cleansed the wool by washing. The women "carded" or combed the wool, spun the fibers into yarn, dyed and wove the yarn into wool cloth.

If a "fulling" mill was available the cloth might be sent out to be fulled. This process removes the natural oils from wool and felts the fibers into a denser more compact mass. It also shrinks the cloth, perhaps into as little as half its original length.

Craftsmen who helped the farmer:

The blacksmith forged out and repaired many of the tools and the cart wheel rims and hardware needed by the farmer. He shod their horses and oxen and made many kitchen utensils such as iron pots, dippers, skimmers and scrapers.

Objects for the hearth such as cranes, tongs, shovels, trivets, game spits, skillets, toasters and and-irons were also made by the blacksmith.

The miller ground the grain into wheat, rye, buckwheat, and cornmeal flour using water power to turn the mill stones. Other millers sawed timber for building, carpentry and cabinet-making. Because of a common need for water to power their water wheels, mills were often located close by each other. Sometimes a fulling mill and bark mill were located near each other and were sometimes frowned on as polluters of water.

The potter sometimes was found in regions with suitable clay. The village scene often included, part time shoemakers, coopers, wheelrights, joiners, weavers, and tailors.

The village store

The farmers traded their surplus grain, eggs, butter, cheese, and woven cloth for - those things which they could not produce themselves: loaf and brown sugar, molasses, tea and coffee, spices and dyes such as indigo and cochineal, salt, gunpowder. As luxuries they sometimes traded for a piece of French chintz, a pot of earthenware from Staffordshire, a brass kettle, a flip glass or two, a gallon of rum. The storekeeper often played the role of postmaster and his store provided the place for exchange of news.

TEACHING STRATEGIES

This section is to guide the teacher by describing the steps involved in the Strategies described.

Instructional Objective:

1. Identify the basic needs of the family today and compare with those of the family in the early New England Village of 1790-1840.

a. List those needs relating to food, clothing and shelter of the 20th century.

Cognitive Task #1

Suggested questions to elicit responses:

Question: What are some of our needs for everyday living?

listing
grouping
labeling
conceptualizing

List the student responses. Encourage by rewording the question if necessary.

Question: Are there any of these needs which we could group together?

Use class terminology for group names though encourage the class to group by food, clothing and shelter. For example...their list as recorded by the teacher may include the following -

food	sleep	breakfast	milk
drink	houses	supper	toys
coats	beds	lunch	shoes etc..

Once recorded encourage the grouping by similarities. Eliminate the luxuries by asking - What is it that we could do without.... or is not absolutely necessary?

b. Develop hypothesis relative to the needs for food, clothing and shelter of the early New England period.

Question: What are some of the things which the people in early New England would have needed?

Use the categories established in 1a. .....food, clothing and shelter. Encourage the group to

hypothesize that the early New Englander would also have needed food, clothing and shelter.

Record the hypotheses for verification.

c. Field-Laboratory Experience - Identify and record evidence of food clothing and shelter to be found at the Pliny Freeman Farm. (See p.17 for detailed objectives)

Question: What evidence do we find that the early New Englanders also needed food, clothing and shelter?

Pose this question or others which will lead the class to verify their hypotheses as stated in 1b.

listing
grouping

Be sure the group understands what it is they are looking for. Record this information during the field-lab experience and upon return from the trip.

Use the slides of the field trip both for recall and gathering additional data.

2. Identify the natural resources, human resources, and capital resources available to man in his attempt to satisfy his needs.

a. List those resources which we use today in satisfying our needs.

Question: What are some of the things which we need for each of the items on our list (1 a.)? (recall of knowledge)

Record their responses.

Question: Are there any of these which we could group together?

Encourage the class to note natural resources, human and capital resources.

Now - Sturbridge 1969

Concepts	Food	Clothing	Shelter
NATURAL RESOURCES			
HUMAN RESOURCES			
CAPITAL RESOURCES			

b. List those resources available to the farmer in satisfying his needs using a set of transparencies and slides showing the layout of the farm, gardens, fields etc....

Draw upon knowledge from the field-lab experience to supplement visuals. Also use stories and diaries in bibliography.

Record on a data retrieval chart.

Then - Sturbridge - 1790-1840

	Food	Clothing	Shelter
NATURAL RESOURCES			
HUMAN RESOURCES			
CAPITAL RESOURCES			

3. Compare and contrast the needs, resources and methods available to the early New England farmer with those available to us today.

Cognitive Task #2

a. Identify similarities and differences in methods employed to satisfy needs relating these to available resources.

Use both of the previously completed data retrieval charts...combine and compare.

Record on a D-R chart as below.

	Then (OSV)			Now (Sturbridge)		
	Natural	Human	Capital	Natural	Human	Capital
FOOD						
CLOTHING						
SHELTER						

b. Make inferences and form generalizations concerning the relationship between available resources and the methods employed in the satisfying of the needs.

inferences

Question: What is it that we can generally say about the needs today? (Today man needs food, clothing and shelter)

Using the data -r chart make inferences

Question: What is it we can generally say about the needs of the early New England farmer? (Early New England man needed food, clothing and shelter)

Using the data -r chart make inferences

generalization

Question: What is it that we can generally say about the needs of both today and the early New England Farmer? (Man's basic needs are food, clothing and shelter)

Record

Question: What is it that we can generally say about the resources available to us today? (We use the resources we have to satisfy our needs)

Record

Question: What is it that we can say about the resources available to the early New England farmer? (The early New England farmer used the resources he had to satisfy his needs)

Record

Question: What is it that we can say about the methods employed in using the resources today? (We use the available machines and sometimes invent others to satisfy our needs)

Record

Question: What is it that we can generally say about the method employed by the early New England Farmer? (The farmer used his available resources)

Record

Question: What can we generally say about man's relationship to his resources? (Resources and resource use are related to cultural and technological development)

Record

4. Make predictions as to the changes in our present methods of satisfying our needs with the advent of technological change.

Cognitive Task #3

a. Given a change in equipment used in the production of food, list those changes evident in satisfying

What would happen if all the food produced for our supper table was totally cooked before we purchased it at the store?

Use other examples...encourage the student to state examples and then.....

predicting consequences

What would happen to the present jobs of factory workers...mother....stove makers...etc..

Who would this change affect?

b. Given a change in the materials available in the construction of a shelter, identify those changes in the process and product and man.

Question: What would happen if wood were no longer available for man to use?

Question: What would man use instead of wood?

Encourage class to predict and ask why?

Question: Who would this change of available material affect?

c. Given a change in weather conditions, list those changes in man's needs.

Question: What would happen to our needs for clothing if temperatures were always 105^{o}?

Encourage other questions pertaining to changes and affect.

Question: What would happen to our needs for clothing if temperatures were always 0^{o}?

Question: How has man generally provided for his basic needs through the use of natural, human and capital resources?

Field-Laboratory Experience

Theme #1

Places to Study in field-lab - Farm House and out buildings and farmland
Gristmill
Blacksmith

Slides will be taken of each step in the visit to be used later in the classroom.

Objectives:

1. to identify and list examples of food, clothing and shelter in the early New England village.
2. to identify the resources used in each category - food, clothing and shelter.
3. to describe the methods used in utilization of natural, human and capital resources.

Suggested Time:

1 hour visit to farm and out buildings merely scanning the gristmill and blacksmith shops.

A series of short visits could be planned to verify other hypotheses which may develop.